Understanding the EndoPredict® Test Report

ENDOPREDICT® IS A GENOMIC TEST FOR WOMEN WITH ER+/HER2−, EARLY-STAGE BREAST CANCER

This guide is not medical advice and is intended to help you understand your patient’s EndoPredict results.
What Does EndoPredict® Do?

EndoPredict provides three separate results that you and your patient can use when determining the treatments that are right for her. These three results answer the following questions:

- What is the chance that her cancer will return within 10 years?
- How will her cancer potentially respond to chemotherapy?
- Can she safely stop hormone treatment (aka endocrine therapy) at five years?

EndoPredict measures the activity of 12 genes in your patient’s tumor that are associated with the risk of her cancer returning and the likelihood it will respond to chemotherapy.¹ ² This molecular result is combined with tumor size and nodal status to create an EPclin Risk Score. Your patient’s individualized EPclin Score will estimate if her cancer is at low (<10%) or high (≥10%) risk of coming back in the next 10 years.

The EPclin Risk Score can range from 1.0 to 6.0. Scores of 3.3 or less mean the cancer is at low risk (<10%) of coming back while scores of 3.4 or more mean the cancer is at high risk (≥10%) of coming back.

EndoPredict® is a gene expression assay for patients with ER+, HER2- early-stage breast cancer. From this genomic analysis, a 12-Gene Molecular Score is assigned. This score, combined with tumor size and nodal status, contributes to the EPclin Risk Score, from which the risks of distant recurrence (10-year and 5 to 15-years) with 5 years of adjuvant endocrine therapy alone and the estimated absolute benefit of chemotherapy (at 10 years) are determined.

Note: Recurrence risk and chemotherapy benefit estimates contained within this report are based on analysis of multiple cohorts of post-menopausal women with resected ER+/HER2- invasive female breast cancer who have not been treated prior to resection with neo-adjuvant therapy (i.e., chemotherapy, radiation therapy or endocrine therapy) and who do not have a current or prior diagnosis of an additional cancer.³ Risks may differ for individuals who do not meet the aforementioned clinical characteristics. Reported recurrence risk estimates assume that this patient will receive endocrine therapy (with or without localized radiation therapy) alone. If this patient is administered chemotherapy in addition to endocrine therapy, the reported 10-year likelihood of distant recurrence and the likelihood of late recurrence (years 5-15) will not reflect actual patient risks. This test result is invalid if the patient has already experienced a distant recurrence.

¹ Myriad Genetics Inc. 2019

² Myriad Genetics Inc. 2019

³ Myriad Genetics Inc. 2019

Your patient’s 12-gene molecular score, tumor size/stage, and nodal status are shown here. These 3 components are combined to give the EPclin Risk Score.

WHAT RESULTS DOES ENDO PREDICT PROVIDE?

A  Risk of distant recurrence in years 0-10
B  Absolute benefit from chemotherapy
C  Risk of late recurrence in years 5-15.
EndoPredict can be ordered on biopsy to provide you with accurate results even faster. When ordering on biopsy, your patient’s report will still provide a molecular score, but it will not have the EPclin Risk Score. This report will provide a table showing her risk score projections based on the molecular score and their nodal status and tumor size that will be obtained from the pathology report after surgery.

The EPclin Risk Score and risk classification will be undefined on a biopsy report, but the table will allow you to see her risk based on additional factors.

The table shows low and high risk projections based on various nodal status and tumor size outcomes in surgery.

Providers can send the pathology report post-surgery to receive an amended full report to review with their patient.
EndoPredict combines a 12-gene molecular score with tumor size and nodal status to provide more prognostic power.\textsuperscript{6,7}

Even as the 12-gene Molecular Score \textbf{A} remains consistent, as Tumor Stage and Nodal Status \textbf{B} change, the EPclin Risk Score \textbf{C} is affected to be High or Low Risk.

<table>
<thead>
<tr>
<th>12-GENE MOLECULAR SCORE:</th>
<th>7.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>TUMOR STAGE:</td>
<td>pT1b,(&gt;0.5,\text{cm but }\leq 1,\text{m})</td>
</tr>
<tr>
<td>NODAL STATUS:</td>
<td>pN0,(zero positive nodes)</td>
</tr>
</tbody>
</table>

Result Interpretation: An EPclin Score of 3.2 is categorized as LOW RISK and is associated with a 8.9\% (95\% CI: 7.2\% - 11\%) 10-year likelihood of experiencing a distant recurrence.

<table>
<thead>
<tr>
<th>EPclin RISK SCORE</th>
<th>3.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-YEAR LIKELIHOOD OF DISTANT RECURRENCE</td>
<td>8.9%</td>
</tr>
<tr>
<td>LOW RISK</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12-GENE MOLECULAR SCORE:</th>
<th>7.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>TUMOR STAGE:</td>
<td>pT2,(&gt;2,\text{cm but }\leq 5,\text{m})</td>
</tr>
<tr>
<td>NODAL STATUS:</td>
<td>pN0,(zero positive nodes)</td>
</tr>
</tbody>
</table>

Result Interpretation: An EPclin Score of 3.9 is categorized as HIGH RISK and is associated with a 17\% (95\% CI: 14\% - 20\%) 10-year likelihood of experiencing a distant recurrence.

<table>
<thead>
<tr>
<th>EPclin RISK SCORE</th>
<th>3.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-YEAR LIKELIHOOD OF DISTANT RECURRENCE</td>
<td>17%</td>
</tr>
<tr>
<td>HIGH RISK</td>
<td></td>
</tr>
</tbody>
</table>

**PROGNOSTIC POWER**

<table>
<thead>
<tr>
<th>Molecular Score</th>
<th>Tumor Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>EndoPredict</td>
<td></td>
</tr>
<tr>
<td>Other Assays*</td>
<td></td>
</tr>
</tbody>
</table>

*OncotypeDX, MammaPrint*
Result Interpretation: An EPclin Score of 4.5 is categorized as HIGH RISK and is associated with a 28% (95% CI: 24% - 33%) 10-year likelihood of experiencing a distant recurrence.

12-GENE MOLECULAR SCORE: 7.9

TUMOR STAGE: pT2 (>2 cm but ≤5m)

NODAL STATUS: pN1 (1-3 positive nodes)

EPclin Risk Score: 4.5
10-YEAR LIKELIHOOD OF DISTANT RECURRENCE: 28%

ESTIMATED ABSOLUTE CHEMOTHERAPY BENEFIT AT 10 YEARS: 13%
How Will My Patient’s Cancer Potentially Respond to Chemotherapy?

Page three of the EndoPredict report provides a 10-year absolute chemotherapy benefit. This shows how much adding chemotherapy to five years of hormone (aka endocrine) therapy will reduce the likelihood of your patient’s cancer coming back within ten years of diagnosis.²

The higher the EPclin Risk Score the more likely your patient will benefit from chemotherapy:²

EPclin Risk Score

LOW → HIGH
LOW → HIGH

Chemotherapy Benefit

A. The solid line shows the 10-year risk of cancer coming back when treated with only 5 years of hormone therapy

B. The dashed line shows the 10-year risk of cancer coming back when treated with chemotherapy plus 5 years of hormone therapy

C. The difference between these two lines is your patient’s benefit from chemotherapy based on her individualized EPclin score

Your patient’s benefit from chemotherapy is shown on the graph and in the grey box.
Can My Patient Safely Stop Hormone Treatment at Five Years?

Page four of the EndoPredict report helps inform long-term treatment decisions and provides a likelihood of late distant recurrence - this is the risk that your patient’s breast cancer will return in a part of their body other than the breast in years five through fifteen. This risk estimate assumes that your patient will take hormone (aka endocrine) treatments as prescribed for the first five years after diagnosis and that her cancer does not recur within the first five years.

As the EPclin score increases along the bottom of the graph, the 5-15 year risk of recurrence increases also.

Your patient’s individualized risk of distant recurrence in years 5-15 is shown on the graph.

3.3 = Low/High Risk cut-off point
Why EndoPredict®?
Prognostic power providing low-risk results you can trust.

EndoPredict is for ER+, HER2− early-stage breast cancer patients (N0 or N+, up to 3 nodes, pre- or postmenopausal)

- Lower cost vs other breast cancer recurrence tests
- Fast 7-day turnaround
- Individualized Low/High Result with chemotherapy benefit
- Inclusion of proliferation- and hormone receptor-related genes contributes to accurate assessment of early and late recurrence risk
- Better identifies a large percentage of low-risk patients (average of 6% recurrence)
  - More than 70% of N0 patients
  - Up to 30% of N+ patients

References: